

2



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,838	12/20/2001	Atsushi Shibata	62807-024	1467

7590 02/14/2005  
MCDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER
----------

FLEARY, CAROLYN FATIMAH

ART UNIT	PAPER NUMBER
----------	--------------

2152

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/022,838

Applicant(s)

SHIBATA, ATSUSHI

Examiner

Carolyn F. Fleary

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/20/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/06/2004
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. JP 2000-393280, filed on 12/21/2000.

### ***Specification***

1. The disclosure is objected to because of the following minor informalities:  
Page 21 line 8 discloses "the address L1". "L1" should be changed to "L2" to correspond to that indicated in figure 10 . Page 21 line 22 discloses "the private address 22". "22" should be changed to "L2" to correspond in the referenced in figure 10.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 fails include a transitional phrase and does not limit the scope of the claim. The transitional phrases "comprising", "consisting essentially of" and "consisting of" define the scope of a claim with respect to what unrecited additional components or steps, if any, are excluded from the scope of the claim. Appropriate correction is required. Examiner will assume the claim with transitional phrase of "comprising" as follows: "wherein each of the

Art Unit: 2152

first and second networks comprises: a node and ....", so as it is inclusive or open-ended and does not exclude additional, unrecited elements or steps (See MPEP 2111.03 [R2]).

Claim 3 recites the limitations: (1) "the address definition information" in line 2 (2) "the address" in lines 5-6 and (3). There is insufficient antecedent basis for these limitations in the claim. Appropriate correction is required. It appears claim 3 should depend from claim 1. Examiner assumes this position for examination.

Claim 7 recites the limitation "the information of the processing" in line 1. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 5-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claim 5-6 and 8 are directed toward computer programs and are considered functional descriptive material and are therefore non statutory. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed aspects of the invention, which permit the computer programs functionalities to be realized. The computer program claimed is not part of a statutory manufacture or machine. A computer program by itself is not process and are considered as nonstatutory functional descriptive material. (See MPEP 2106 [R-2] IV. B (b)). Claim 7 is directed toward a computer program for use in a "computer readable storage medium". However claim 7 does not define any structural and functional interrelationships between the computer program and other claimed aspects of the

Art Unit: 2152

invention (i.e. computer readable storage medium), which permit the computer programs functionalities to be realized (See MPEP 2106 [R-2] IV. B (b)).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 1 -2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (US 6,535,511) in view of Denison (6,581,108).**

In regards to claim 1, Rao discloses a network management system (fig. 1) for managing a network system in which a first network (fig. 1-#12 & #20) and a second network (fig. 1-#14 & #22) which have the different address systems (col. 3, lines 23-25) are connected to each other through an address translator (fig. 1-#16), wherein each of said first (fig. 1-#12, 20) and second (fig. 1-#14 & #22) networks has a node (fig. 1-#24, col. 3 lines 23-27) and a management protocol proxy (fig. 1-#16); and each of said management protocol proxies (fig. 1-#16) includes management protocol proxy data generating unit (fig. 1-16) for treating, as management protocol proxy data (fig. 2), a transmission source address (fig. 2-#32 & 42, col. 3 lines 52-55), transmission destination address (fig. 2-#32 & #44, col. 3 lines 52-55) and data in a protocol data unit (fig. 2-#36, col. 3 lines 48-54) which are contained in a packet (fig. 1-#30) sent from the associated one of said nodes (fig. 1-#24, col. 3 lines 19-21, col. 3 lines 49-51), and an address translation unit (fig. 1-#60 & #62 & #64) for translating the address information in the

Art Unit: 2152

protocol data unit (fig. 2-#46, col. 4 lines 38-40, 52-56) contained in the management protocol proxy data (fig. 2) sent from the other management protocol proxy.

Rao is silent on the components that comprise the second network (fig. 1-#14 & #22, col. 3 lines 23-28). However Rao discloses translation functions (fig. 1-#60) which translates information between the first (fig. 1-#12 & #20) and second (fig. 1-#14 & #22) networks whenever packets (i.e. management protocol proxy data) cross the router (fig. 1-#16) device (i.e. management protocol proxy). It is readily apparent to one of ordinary skill in the art that a mere duplication of the first network (fig. 1-#14 & #22) produces the components (i.e. "other management protocol proxy) that comprise the second network and would not cause new any unexpected results to the overall functionality (See MPEP 2144.04 [R-1] VI B.).

Rao fails to disclose packets that belong to a management protocol. However Denison et al. teaches a management protocol (i.e. SNMP col. 2 lines 55-57) for retrieving information from network elements (i.e. nodes) in a managed network (fig. 1-#100). The retrieved information are SNMP packets that contain IP header and payload information sent to a network manager (fig. 1-#106) (col. Lines 47-67).

It would be obvious to one of ordinary skill in the art at the time of invention to modify Rao by having management protocol packets taught by Denison et al. in order to allow a network manager to have a consistent view of network elements (i.e. nodes) on a network (see Denison et al. col. 12 lines 59-64 ).

**In regards to claim 2,** Rao discloses a network management system (fig. 1) according to claim 1 wherein each of said management protocol proxies (fig. 1-#16) has address definition information (fig. 1-#62, fig. 3-#68) in which the transmission destination address (fig. 2-#32 & #44, col. 3 lines 52-55), contained in the packet (fig. 2-#30) sent

Art Unit: 2152

from the associated one of said nodes (fig. 2-#32 & #44, col. 3 lines 52-55) is made correspond (col. 5 lines 1-16 )to an address (col. 4 lines 36-39) of the management protocol proxy of interest (col. 4 lines 36-39); and each of said management protocol proxy data generating units (fig. 1-16) is adapted to determine an address of the management protocol proxy of the transmission destination on the basis of the transmission destination address (col. 5 lines 14-16) sent from the associated ones of said nodes ( fig. 2-#32 & #44, col. 3 lines 52-55) and the address definition information ( col. 4 lines 36-47).

Rao is fails to disclose packets that belong to a management protocol However Denison et al. teaches SNMP management protocol for retrieving information from network elements (i.e. nodes) in a managed network (fig. 1-#100). The retrieved information are SNMP packets that contain IP header (col. lines 47-67).

It would be obvious to one of ordinary skill in the art at the time of invention to modify Rao by having management protocol packets as taught by Denison et al. in order to allow a network manager to have a consistent view of network elements (i.e. nodes) on a network (see Denison et al. col. 12 lines 59-64 ).

**In regards to claim 4** Rao discloses a network management system (figure 1) according claim 2, wherein each of said management protocol proxies (fig. 1-#16) has an address translation rule (fig. 1-#62, col. 4 lines 35-39) in accordance with which the address translation information is defined (fig. 1-#62, col. 4 lines 35-39), and each of said address translation units (fig. 1-#60 & 62) adapted to translate the address information contained in the protocol data unit(col. 6 lines 21-30) on the basis of the address translation rule

Art Unit: 2152

Rao fails to teach translation of address information to the management protocol on the basis of the ASN.1 define statement of an MIB object becoming a subject of the translation.

Denison et al. teaches SNMP packets that contain payload information with MIB objects, that contain address information, and are encoded with the ASN.1 language (col. 3 lines 33-42, col. 4 lines 10-15). An address translator examines the object to determine the existence of and IP address. If it exists then the address is translated (col. 4 lines 26-30, 34-36)

It would be obvious to one of ordinary skill in the art at the time of invention to modify Rao by having translation of address information on the basis of ASN.1 encoded MIB objects in order to translate IP address information embedded in management protocols that contain MIB objects thereby creating a unique IP address of which is used for permitting consistent view of network elements (i.e. nodes) by a network manager (see Denison et al. col. 2 lines 59-64, col. 4 lines 17-23 ).

**In regards to claim 5,** Rao et al. disclose, a network management system for managing a network system in which a plurality of networks which have the different address systems are connected to one another through address translators, said network management system comprising (fig. 1-#100): a plurality of nodes (fig. 1-24) and a plurality of management protocol proxies (fig. 1-#16) which are connected to said networks (fig. 1-#20 & 22), respectively, wherein each of said management protocol proxies (fig. 1-#16) includes a management protocol proxy data generating unit for treating, as proxy data of a management protocol, a transmission source address (fig. 2-#32 & 42, col. 3 lines 52-55), a transmission destination address (fig. 2-#32 & 42, col. 3 lines 52-55) and data in a protocol data unit (fig. 2-#36, col. 3 lines 48-54) which are contained in a packet according



Art Unit: 2152

to a management protocol sent from the associated one of said nodes (fig. 1-#24) , and an address translation unit (fig. 2-#46, col. 4 lines 38-40, 52-56) for translating address information in the protocol data unit contained in the proxy data of the management protocol (fig 2) sent from another management protocol proxy.

Rao is silent plurality of on the components (fig 1-#16). However Rao discloses translation functions (fig. 1-#60), which translates information between networks whenever packets (i.e. management protocol proxy data) cross the router (fig. 1-#16) device (i.e. management protocol proxy). It is readily apparent to one of ordinary skill in the art that a mere duplication of the components (fig 1-#16) produces the plurality components that comprise the system and would not cause new any unexpected results to the overall functionality (See MPEP 2144.04 [R-1] VI B.).

Rao fails to disclose packets that belong to a management protocol However Denison et al. teaches a management protocol (i.e. SNMP col. 2 lines 55-57) for retrieving information from network elements (i.e. nodes) in a managed network (fig. 1-#100) The retrieved information are SNMP packets that contain IP header and payload information sent to a network manager (fig. 1-#106) (col. Lines 47-67).

It would be obvious to one of ordinary skill in the art at the time of invention to modify Rao by having management protocol packets taught by Denison et al. in order to allow a network manager to have a consistent view of network elements (i.e. nodes) on a network (see Denison et al. col. 12 lines 59-64 ).

**Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (US Patent 6,535,511) in view of Denison (6,581,108) further in view of Cunningham et al. (US 6,493,765).**

Art Unit: 2152

**In regards to claim 3**, Rao & Denison et al. as applied to claim 1 discloses, the address definition information (col. 4 lines 36-47, figure 1-#62, fig. 3-#68) which said management protocol proxy (fig. 1-16) of at least one network of said first (fig. 1-#12,20) or second network has.

Rao & Denison et al. as applied to claim 1 above fails to disclose address definition where the address which not defined in said address translation and the address of the associated one of said management protocol proxies are defined in such away as to be made correspond to each other.

Cunningham et al. teaches a request by a proxy on a first network to a NAT (fig 1-#1-4) for which the address translation is not defined (col 8 lines 64-67). The NAT component corresponds the undefined address which is not defined to the proxy by creating an and address translation for the undefined address and then sends the request to the destination (col 9 lines 1-17) to ensure that all request from a network on which overlapping address are present, are assigned a unique address in order to prevent the occurrence of ambiguous network address (See Denison et al. col 1 lines 30-45, 56-67).

It would be obvious to one of ordinary skill in the art at the time of invention to modify Rao & Denison et al. as applied to claim 1 above by corresponding the undefined address to a proxy as taught by Cunningham et al. in order to prevent the occurrence of ambiguous network address by ensuring that all request corresponds to a unique address.

**Claim 6 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denison et al. (US 6,581,108).**

**In regards to claim 6,** Denison et al. discloses a management protocol processing method (col. 2 lines 41-64) of processing a packet sent from a node to transmit the packet (col. 3 lines 16-30) thus processed, said method comprising the steps of: treating, as proxy data of a management protocol, a transmission source address, a transmission destination address (i.e. IP Header translation of packet col. 2 lines 48-51) and data in a protocol data unit (i.e. payload col. 2 lines 57-59) which are contained in the packet according to the management protocol (col. 3 lines 55-64) sent from said node (col. 3 lines 16-30); and translating address information in a protocol data unit contained in the proxy data of the management protocol (col. 3 lines 31-33) sent from another management protocol proxy (fig. 1-#106, col. 3 lines 10-15).

Denison et al. is silent on proxy data of the management protocol sent from another management protocol proxy. It is readily apparent to one of ordinary skill in the art that a mere duplication components (fig. 1-#100 produces the other components would not cause new any unexpected results to the overall functionality (See MPEP 2144.04 [R-1] VI B.).

**In regards to claim 7,** Denison et al. discloses for use in a computer readable storage medium (col. 6 lines 36-41) in which the information of the processing, according to a management protocol (col. 3 lines 55-64, claim 8), of processing a packet of the management protocol sent from a node (col. 3 lines 16-30) to transmit the packet thus processed, a method comprising the steps of: treating, as proxy data of a management protocol, a transmission source address (i.e. IP Header translation of packet col. 2 lines 48-51), a transmission destination address (i.e. IP Header translation of packet col. 2 lines 48-51) and data in a protocol data unit (i.e. payload col. 2 lines 57-59) which are contained in the packet according to the management protocol (col. 3 lines 55-64, claim 8) sent from

Art Unit: 2152

said node; and translating address information in a protocol data unit contained in the proxy data of the management protocol (col. 3 lines 31-33) sent from another management protocol proxy.

Denison et al. is silent on proxy data of the management protocol sent from another management protocol proxy. It is readily apparent to one of ordinary skill in the art that a mere duplication components (fig. 1-#100 produces the other components would not cause new any unexpected results to the overall functionality (See MPEP 2144.04 [R-1] VI B.).

**In regards to claim 8,** Denison et al discloses for use in a program for executing the processing of a management protocol, said program being adapted to process a packet of a management protocol sent from a node to transmit the packet thus processed, a method comprising the steps of: treating, as proxy data of a management protocol, a transmission source address (i.e. IP Header translation of packet col. 2 lines 48-51), a transmission destination address (i.e. IP Header translation of packet col. 2 lines 48-51) and data in a protocol data unit(i.e. payload col. 2 lines 57-59) which are contained in the packet according to the management protocol (col. 3 lines 55-64, claim 8)sent from said node; and translating address information in a protocol data unit contained in the proxy data of the management protocol (col. 3 lines 31-33) sent from another management protocol proxy.

Denison et al. is silent on proxy data of the management protocol sent from another management protocol proxy. It is readily apparent to one of ordinary skill in the art that a mere duplication components (fig. 1-#100 produces the other components would not cause new any unexpected results to the overall functionality (See MPEP 2144.04 [R-1] VI B.).

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### **Multiplex Communication on ATM Network**

- Mendelson; Jeffrey B. et al. (US 6343083) Method and apparatus for supporting a connectionless communication protocol over an ATM network

#### **Network Address Translation**

- Schuster; Guido M. et al. (US 6822957) Distributed network address translation for a network telephony system
- Borella; Michael S. et al. (US 6567405) Method and protocol for distributed network address translation
- Borella; Michael S. et al. (US 6353614) Method and protocol for distributed network address translation
- Mahler; Jerry J. et al. (US 6381638) System and method for options based address reuse
- Cunningham; Timothy et al. (US 6493765) Domain name resolution in a network having multiple overlapping address domains

#### **Establishing connections or virtual circuits between networks**

- Keshav; Srinivasan et al. (US 5623605) Methods and systems for interprocess communication and inter-network data transfer
- Beser; Nurettin B. et al. (US 6523068) AT Method for encapsulating and transmitting a message includes private and forwarding network addresses with payload to an end of a tunneling association

Art Unit: 2152

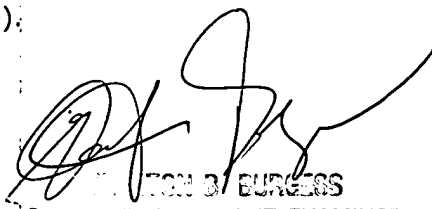
### Network Management

- Bhatia; Rajiv et al. (US 6023724) Apparatus and methods for use therein for an ISDN LAN modem that displays fault information to local hosts through interception of host DNS request messages
- Saito; Takeshi et al. (US 6523696) Communication control device for realizing uniform service providing environment
- Nassar; Ayman (US 6801528) System and method for dynamic simultaneous connection to multiple service providers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn F. Fleary whose telephone number is (571) 572-7212. The examiner can normally be reached on 8:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GLENTON BURGESS  
SENIOR PATENT EXAMINER  
TECHNOLOGY CENTER 2100

Carolyn F Fleary  
Examiner  
Art Unit 2152

Application/Control Number: 10/022,838

Page 14

Art Unit: 2152

CFF